

Wallasey District Council.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

1898.

WILLMER BROS. & Co, LTD., BIRKENHEAD AND LIVERPOOL.

1899.

URBAN SANITARY

District of Wallasey.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

I beg to lay before you my Annual Report for 1898.

I shall first make an estimate of the Population to get a basis of calculation for the rates of mortality, &c.

The number of inhabited houses at the end of 1898, as supplied by Mr. Burnley, is as follows:—

Poulton-cum-Seacombe ...	...	...	3,936
Liscard ...	...	...	4,960
Wallasey ...	...	...	719

No. of
Inhabited
Houses

Total... 9,615

At the end of 1897, the total was 9,130, and so there was an increase of 485 inhabited houses during the past year, while in 1897 the increase was 592, and in 1896, 494.

Allowing 5 to each house, (a liberal enough estimate, I believe, for our District), we get a Population of 48,075 at the end of 1898, compared with 45,650 at the end of 1897, which shows an increase of 2,425 for the year, while in 1897 the estimated increase was 3,000.

Estimated
Population

The mean Population at the middle of 1898 is therefore 46,800, without making any allowance for the floating population in the River or in the Docks, or for the numerous visitors now coming to New Brighton and Wallasey, especially during the warmer months.

The estimate is probably quite high enough—but all depends first on the accuracy of the number of inhabited houses, and second on the number per house. We shall not be able to gauge the latter till the census of 1901.

During the past year the Registrar-General intimated to the Clerk that Wallasey is now classed amongst the 67 other large Towns of England and Wales (coming after the 33 Great Towns.) This shows the growing importance of Wallasey in point of Population.

TABLE 1.—Showing Increase of Population since Census.

	Date.	No. of Inhabited Houses	Persons per House.	Population.
Census,	1891	6,364	5.2	33,227
January,	1892	6,537	5.2	33,992
„	1893	6,928	5.1	35,332
„	1894	7,124	5.1	36,332
„	1895	7,564	5.1	38,576
„	1896	8,044	5.0	40,220
„	1897	8,538	5.0	42,690
„	1898	9,130	5.0	45,650
„	1899	9,615	5.0	48,075

No of Deaths At the beginning of the century the population was 663.

Death-Rate The number of Deaths in 1898 was 774, as against 736 in 1897—an increase of 38.

The Death-Rate is thus 16.53 per 1,000 per annum, compared with 16.72 in 1897—a decrease of 0.19 for the past year.

English Rate The Death-Rate for England and Wales in the past year was 17.6, as compared with 17.4 in 1897.

The Urban Rate was 18.3 per 1,000, and in the Rural Districts 16.0. Our Death-Rate is therefore 1.1 below the English Rate, and 3.3 below the Urban Rate, while it is only 0.5 above the Rural Rate.

As previously stated, we are now classed amongst the 67 large towns. Of the Deaths, 386 were Males and 388 Females.

Our average Death-Rate for the last 10 years (1888-1897) was 15.97, so that the rate for the past year was 0.56 above the average for the last decade.

The Births numbered 1,319, as against 1,265 in 1897, giving
respective Rates of 28·18 and 28·75 per 1,000 of the population.

Births and Rates

There was an increase of 54 Births.

Of these Births 635 were Males and 684 Females.

The natural increase in the Population, *i.e.*, the excess of Births over Deaths was thus 545, as against 529 in 1897, so that the great bulk of our increase in Population is due to immigration.

The Birth Rate in England and Wales was 29·4 per 1,000, so that our Birth Rate is 1·3 below the English Rate.

English Rate.

The annexed Table gives a summary since 1892 of the numbers of Births and Deaths with the corresponding rates :—

Births and Deaths since 1892 with Rates

TABLE II.

	1892.	1893.	1894.	1895.	1896.	1897.	1898.
Births	1078	1108	1003	1104	1172	1265	1319
Birth-Rate	31·24	31·21	27·08	28 30	28·24	28·75	28·18
Deaths	535	641	526	604	613	736	774
Death-Rate	15·50	18·05	14·21	15·48	14·77	16·72	16·53

TABLE III.—Shows the distribution of the Births in the different Townships since 1893 :—

Births in the Townships

Births.	1893.	1894.	1895.	1896.	1897.	1898.
Poulton-cum-Seacombe	570	534	567	603	632	645
Liscard	463	408	460	491	541	566
Wallase	75	61	77	73	92	108

This shows that Seacombe has more Births than Liscard, despite a smaller estimated Population, as in Table V.

TABLE IV.—Shows the number of Deaths in the different Townships since 1895, with the corresponding rates :—

Deaths in the Townships

Deaths.	Poulton-cum-Seacombe.	Liscard.	Wallasey.
1895	316 (—18·16)	256 (—13·36)	33 (—13·46)
1896	291 (—16 16)	284 (—13·65)	38 (—14·07)
1897	364 (—19·46)	340 (—15·24)	48 (—16·00)
1898	342 (—17·62)	383 (—15·95)	49 (—14·41)

The number of Deaths for the Townships, as given above, does not correspond with that given in the large printed sheet, or in the sheet marked **A**, because fatal cases in Hospitals are here referred to the Townships from whence they came.

Population
of the
Townships

TABLE V.—Population of the Townships.

	Census. 1881.	Census. 1891.	Estimated at Middle of 1898.
Poultton-cum-Seacombe ..	7,640	14,900	19,400
Liscard	11,612	16,356	24,000
Wallasey	1,940	1,971	3,400

Full information is given in the large sheet at end of Report as to the number of Males and Females, the different ages at Death, the Townships in which the Deaths took place, as well as the Deaths in Public Institutions (Hospitals, &c.), and amongst Non-residents ; likewise as to the number of Deaths in each month and each quarter ; with a detailed classification of the different causes of Death. Table B gives Statistics, apart from Mortality Returns, and is modelled now to suit the information derived from the Infectious Diseases' Notification Act, so as to give the notified cases of each Disease in the different Townships, and the number removed to the Isolation Hospital. It also gives details as to the Population and Births which are found in the text of my Report. Tables A and B are not printed in the Report in full.

Mortality in
the Quarters.

TABLE VI.—**Showing the Mortality in the different Quarters of the Year.**

1896.	Quarters:	1st	155	2nd	141	3rd	131	4th	186
1897.	„	„	186	„	187	„	218	„	145
1898.	„	„	164	„	198	„	213	„	199

The First Quarter was thus by far the most healthy, while the Third or Autumn Quarter was the most unhealthy, which is largely explained by the number of deaths from Diarrhœa and Enteritis in the Autumn months, those two diseases alone accounting for 65 out of the 213 deaths.

I give next the usual Meteorological Table furnished through the courtesy of Mr. Plummer, of Bidston Observatory :—

Latitude 53° 24' 4" North, Longitude 3° 4' 17" West.

Height of Barometer above the mean level of the sea 201 feet.

TABLE VII.

1898.		Mean Barometer. Inches.	Mean Temperature. Degrees.	Rainfall in Inches.
January		30·264	45·1	1·578
February		29·895	41·3	1·807
March		29·928	40·4	0·755
April		29·863	47·5	1·911
May		29·833	50·1	4·511
June		29·968	56·7	2·331
July		30·114	58·7	0·475
August		29·967	61·2	3·837
September		30·058	58·8	1·394
October		29·796	52·1	3·496
November		29·808	45·5	1·668
December		29·952	46·6	1·956
				<hr/> 25·719 <hr/>

A comparison between the above table and that for 1897 gives the following results as regards Temperature and Rainfall, the sign + meaning an increase for 1898, and the sign — a decrease for 1898.

			Mean Temp. in Degrees.	Rainfall in Inches.
January			+9·9	+0·348
February			—1·2	—0·265
March			—3·5	—1·593
April			+2·4	—0·345
May			—0·6	+3·461
June			—1·8	—0·343
July			—2·7	—0·213
August			—0·3	+0·304
September			+4·8	—2·795
October			+0·9	+1·783
November			—1·3	—2·033
December			+4·8	—1·120

Thus on the whole year there was an increased mean Temperature of 11·4 — mainly gained in January, September and December. There was a decrease in the Rainfall of 2·861 inches, the year being a comparatively dry one all over the country.

July, August and September were very hot months, and as July was a very dry month and also the first part of August, Diarrhœa and Enteritis (practically the same thing under different names) prevailed extensively from July into October.

The deaths were as follows :—

			Diarrhœa.	Enteritis.	
July ..	..	..	2	4	= 6
August ..	..	..	10	20	= 30
September ..	..	..	16	13	= 29
October ..	..	..	3	10	= 13
					<hr/>
					78
					<hr/>

out of a total of 86 from these two diseases for the year. (5 of the deaths from Enteritis were in adults and not the same as Infantile Diarrhœa, so it is really 78 out of 81 deaths of children under 2 years of age.)

Although the total average mean Temperature was 11·4 higher in 1898 than in 1897, the deaths from Phthisis were 64 as compared with 36 in 1897 and 43 in 1896.

The deaths from Bronchitis and Pneumonia were 97 as against 96 in 1897 and 98 in 1896, (v. Table IX).

The next table gives the Mortality (from all causes) under one year, the so called Infant Mortality, which is always looked on as an important index to the healthiness and sanitary condition of a locality.

It also gives the numbers of deaths under 5 years of age.

TABLE VIII.

Infant Mortality	Year.	Infants under one year.	Rate of Infant Mortality per cent of Deaths.	Rate of Infant Mortality per 1,000 Births.	Under 5 Years.
	1893	167	26·05	150·7	233
	1894	116	22·05	115·6	192
	1895	162	26·82	146·7	225
	1896	168	27·40	143·3	224
	1897	213	28·94	168·3	334
	1898	221	28·55	167·5	296

Thus there were 8 more Deaths of Infants under 1 year in 1898 than in 1897.

The Infant Mortality for England and Wales per 1,000 Births was 161, compared with our 167·5, so that our rate is 6·5 higher. Usually our rate is considerably lower than the English rate in this special feature, but of course the latter includes Rural as well as Urban Rates and is therefore much lowered.

Details of Deaths under 1 year from 1895 to 1898 from those diseases most fatal to Infants are here given.

Fatal
Infantile
Diseases

	1895.	1896.	1897.	1898.
Diarrhœa	19	26	26	28
Convulsions	12	19	23	21
Bronchitis	19	10	13	13
Enteritis	23	7	27	45
Premature Birth ..	17	21	27	28
Atrophy and Debility	34	36	35	24
	<hr/>	<hr/>	<hr/>	<hr/>
Total ..	124	119	151	162
	<hr/>	<hr/>	<hr/>	<hr/>

29 Persons belonging to the Wallasey District died in the Tranmere Workhouse, and as there were 22 deaths of Visitors to the District during the year, the latter very nearly balance the former.

Of the total number of deaths (774), 149 were over 65 years of age, and of these 12 were over 85 years.

22 out of the 774 deaths were not certified either by a registered Medical Practitioner or by a Coroner, which gives a per centage of 2·8, compared with 1·9 for England and Wales.

58 Inquests were held during the year, as against 59 in 1897, which gives a per centage of 7·4 Deaths certified by a Coroner, compared with 6·2 for England and Wales.

There were 7 Drowning cases in 1898—and 10 in 1897. 3 of these were non-residents.

I now give an analysis of the large sheet, which supplies a complete statement of particulars of all the deaths during the year. The subjoined tabular synopsis gives a useful survey of the different classes of diseases, with the mortality of each, both in absolute numbers and in rates per 1,000 per annum. It also gives the mortality of the leading forms under each class with the exception of Zymotics, which are given in fuller detail in the succeeding table.

Analysis of
Deaths (See
Sheet at end
of Report)

Localities of
Fatal
Zymotics.

TABLE IX.

Classes	1894.	1895.	1896.	1897.	1898.
ZYMOTICS	67—1·81	57—1·46	64—1·54	120—2·72	82—1·75
CONSTITUTIONAL	76—2·05	91—2·3	95—2·2	95—2·1	127—2·7
Cancer	21	37	25	31	32
Phthisis.. .. .	43	41	43	36	64
LOCAL DISEASES	254—6·86	305—7·82	303—7·3	344—7·8	407—8·6
Apoplexy	18	27	27	24	23
Convulsions	19	14	21	25	23
Brain disease includ- ing Meningitis }	29	19	17	31	48
Heart Disease	42	53	52	47	67
Bronchitis	29	57	49	41	47
Pneumonia	51	46	49	55	50
Liver Disease	7	5	8	8	7
Bright's Disease	5	4	12	12	6
DEVELOPMENTAL	75—2·02	86—2·205	97—2·3	109—2·4	91—1·9
Premature Birth . . .	14	18	21	28	28
Old Age	24	19	25	30	26
Atrophy and Debility	23	40	36	46	28
DROWNING	10	19	10	10	7

The first-class, viz., Zymotics, is fully detailed in the succeeding Table X.

The next Table shows the Deaths from Zymotics, confining the term to those reckoned as such in the Registrar-General's Returns and in all health reports. The full list of Zymotics is given in the large printed sheet, which will be found at the end of this Report.

TABLE X.— Deaths from Zymotic Diseases.

Zymotics—	1892.	1893.	1894.	1895.	1896.	1897.	1898
Total	71	80	67	57	64	120	82
Smallpox	0	0	0	0	0	0	0
Measles	31	1	8	1	4	34	6
Scarlet Fever	3	2	5	4	4	15	11
Diphtheria and Croup ..	6	9	9	9	6	3	5
Whooping Cough	7	12	14	6	10	21	19
Fever (Typhoid) . . .	20	23	13	8	10	9	9
Diarrhœa	4	33	18	29	30	38	32
Cholera (Simple)	0	0	0	0	0	0	0
Rate per 1,000 of population	2·05	2·25	1·81	1·46	1·54	2·72	1·75
English Rate do.	1·90	2·47	1·76	2·14	2·18	2·15	2·22

Our average Zymotic Rate for the last 10 years (1888—1897) was 1·90, as compared with 1·75 in 1898, so that for the past year the rate is 0·15 lower than the average for the last 10 years. The Zymotic Rate in England and Wales was 2·22 per 1,000 as compared with our 1·75, so that ours is 0·47 lower than the English Rate. The General Rate, deducting the Zymotic Rate is 14·7 per 1000.

TABLE X.—Shows Localities of Fatal Zymotic Deaths

(M. L. H.—MILL LANE HOSPITAL).

TYPHOID FEVER. 1898.

(1)	April	..	M.L.H. from Ashville Road, Seacombe
(2)	June	..	King Street, Liscard
(3)	"	..	Kenilworth Road, Seacombe
(4)	"	..	M.L.H. from Plantation Cottages, New Brighton
(5)	July	..	M.L.H. from Naples Road, Seacombe
(6)	"	..	Osborn Road, Liscard
(7)	October	..	M.L.H. from Geneva Road, Seacombe
(8)	"	..	M.L.H. from Grange Avenue, Liscard
(9)	December	..	Glenalmond Road, (Egremont), Liscard

SCARLATINA. 1898.

(1)	January	..	Granville Terrace, Wallasey
(2)	"	..	M.L.H. from Magazine Lane, Liscard
(3)	"	..	Stone Cottages, Manor Lane, Liscard
(4)	April	..	M.L.H. from Union Street, Egremont
(5)	May	..	M.L.H. from Granville Terrace, Wallasey
(6)	June	..	M.L.H. from Kenilworth Road, Seacombe
(7)	July	..	Wallasey C.H. from The Village, Wallasey
(8)	October	..	M.L.H. from Back King Street, Egremont
(9)	November	..	M.L.H. from Mersey Street, Seacombe
(10)	"	..	M.L.H. from The Stables, Alexandria Road, Liscard
(11)	December	..	Hertford Drive, Liscard

DIPHTHERIA. 1898.

(1)	January	..	M.L.H. from Rose Cottage, Poulton
(2)	October	..	Greenfield Street, Liscard
(3)	December	..	M.L.H. from Ashville Road, Seacombe

CROUP. 1898.

(4)	October	..	Victoria Road, New Brighton
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WHOOPING COUGH, 1898.

(1)	January	..	Hawthorne Grove, Seacombe
(2)	March	..	Rudgrave Square, Egremont
(3)	"	..	King Street, Egremont
(4)	April	..	Brotherton Street, Seacombe
(5)	"	..	Brotherton Street, Seacombe
(6)	"	..	Union Street, Egremont
(7)	"	..	Eleanor Street, New Brighton
(8)	"	..	Burnaby Street, Egremont
(9)	May	..	Back King Street, Egremont
(10)	"	..	Sandfield Road, Liscard
(11)	"	..	Clifton Grove, Egremont
(12)	"	..	Hawthorndale Road, Seacombe
(13)	June	..	Mersey Street, Seacombe

WHOOPIING COUGH.—CONTINUED.

(14)	July	..	Waterloo Road, New Brighton
(15)	August	..	Mersey Street, Seacombe
(16)	"	..	St. Albans Road, Liscard
(17)	"	..	Ashville Road Seacombe
(18)	December	..	Waverley Street, Seacombe
(19)	"	..	Havelock Street, Seacombe

MEASLES, 1893.

(1)	February	..	Field Road, New Brighton
(2)	June	..	Waverley Street, Seacombe
(3)	July	..	Waverley Street, Seacombe
(4)	"	..	Waverley Street, Seacombe
(5)	October	..	Big Yard, Wallasey
(6)	November	..	The Village, Wallasey

DIARRHŒA, 1898.

(1)	May	..	Wheatland Lane, Seacombe
(2)	July	..	Tollemache Street, New Brighton
(3)	"	..	Windsor Street, New Brighton
(4)	August	..	Stanley Street, Seacombe
(5)	"	..	Mersey Street, Seacombe
(6)	"	..	Juliet Street, Poulton
(7)	"	..	Greenfield Street, Liscard
(8)	"	..	The Village, Wallasey
(9)	"	..	Green Lane, Liscard
(10)	"	..	Green Lane, Liscard
(11)	"	..	Stafford Buildings, Withens Lane, Liscard
(12)	"	..	Brighton Street, Seacombe
(13)	"	..	Egerton Street, New Brighton
(14)	September		Portia Street, Poulton
(15)	"	..	Portia Street, Poulton
(16)	"	..	Parry Street, Seacombe
(17)	"	..	Hawthorndale Road, Seacombe
(18)	"	..	Union Street, Egremont
(19)	"	..	Wheatland Lane, Seacombe
(20)	"	..	Hawthorn Grove, Seacombe
(21)	"	..	Sandridge Road, Liscard
(22)	"	..	Oakdale Road, Seacombe
(23)	"	..	Wheatland Lane, Seacombe
(24)	"	..	Palermo Street, Seacombe
(25)	"	..	Chapel Street, Seacombe
(26)	"	..	Wheatland Lane, Seacombe
(27)	"	..	Back Willow Cottages, Seacombe
(28)	"	..	Geneva Road, Seacombe
(29)	"	..	Demesne Street, Seacombe
(30)	October	..	Abbotsford Street, Seacombe
(31)	"	..	Havelock Street, Seacombe
(32)	"	..	Sutton Road, Liscard

TABLE XII.—**Cases of Infectious Disease notified in the Urban District of Wallasey during the year, 1898.**

Township.			Diphtheria.	Membranous Croup.	Erysipelas.	Scarlatina,	Typhoid.	Puerperal.	Total.	
Poulton-cum-Seacombe ..			{ Under 5 Years.	3	1	2	34	2	—	42
			{ Over 5 Years.	7	—	18	65	30	3	123
Liscard.	Egremont	..	{ Under 5 Years.	2	—	—	5	—	—	7
			{ Over 5 Years.	1	—	6	11	8	—	26
	Liscard	..	{ Under 5 Years.	1	—	—	10	2	—	13
			{ Over 5 Years.	7	1	7	27	19	1	62
	New Brighton	..	{ Under 5 Years.	1	1	—	11	2	—	15
			{ Over 5 Years.	2	1	4	42	17	—	66
Wallasey	..	{ Under 5 Years.	—	—	—	6	—	—	6	
		{ Over 5 Years.	4	—	1	9	7	—	21	
Totals			{ Under 5 Years.	7	2	2	66	6	—	83
			{ Over 5 Years.	21	2	36	154	81	4	298
									381	

TABLE XIII.

Typhoid Notifications in 1898.				Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.				
Liscard.	Seacombe	..	..	..	4	0	0	1	1	4	3	2	5	8	3	1	32
	Egremont	..	..	..	1	0	0	0	1	0	1	1	0	3	1	0	8
	Liscard Proper		..	..	1	0	3	1	0	1	3	1	6	2	2	1	21	
	New Brighton	..	..	..	1	0	1	0	1	2	3	3	2	5	0	1	19
	Wallasey	..	..	..	0	1	0	0	0	0	0	3	1	0	2	0	7
Totals..				7	1	4	2	3	7	10	10	14	18	8	3	87

Scarlatina Notifications in 1897.				Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.				
Liscard.	Seacombe	..	..	..	15	9	7	18	8	9	1	5	7	10	4	6	99
	Egremont	..	..	..	2	1	0	1	1	1	0	2	1	2	2	3	16
	Liscard Proper		..	..	9	6	11	1	0	1	1	3	1	0	2	2	37	
	New Brighton	..	..	..	9	6	6	9	2	2	0	0	4	10	4	1	53
Wallasey				6	4	1	1	2	1	0	0	0	0	0	0	15
Totals				41	26	25	30	13	14	2	10	13	22	12	12	220

I now proceed to deal with the different Zymotic Diseases in detail.

During 1898 no case of Smallpox, Typhus, or Cholera occurred in our District.

Some comments on the danger of an outbreak of Smallpox will be found in connection with the Vaccination Returns on Page 27

No case of Typhus has occurred since the year 1878. Lately, information was received from the Liverpool Medical Officer of Health that a relative from our District had visited a man in Liverpool then suffering from Typhus and soon after removed to Hospital. I visited the relative here at once, gave her warning of the possible danger of illness, and she promised to give notice at once if any sickness followed. She was visited daily till all risk of Typhus developing passed away.

Measles

6 fatal cases of Measles were recorded as against 34 in 1897 (See Table X). The mortality is thus 0·12 compared with an English Rate of 0·41 per 1000.

3 fatal cases occurred in Seacombe, 1 in New Brighton and 2 in Wallasey. Table XI. shows the localities of these fatal cases, as also of fatal cases caused by the other Zymotic Diseases.

Although only two fatal cases were recorded in the Township of Wallasey, a very extensive epidemic broke out in Wallasey Village, and spread so rapidly that I visited the schools to ask for statistics as to school attendance.

The following report was given (September 25th):—

	On the Books.	Actual Attendance.
Infants	148	33
Girls	112	76
Boys	142	102

On the receipt of this, the schools were, on my Certificate, closed for a period of 3 weeks, and for another subsequent 2 weeks, as the epidemic had not died out at the end of three weeks. The Sunday

schools were also closed. The villagers of Wallasey show the most extraordinary ignorance and carelessness in presence of an epidemic of this sort, going freely into infected houses and exposing their children, as if fate alone settled whether they were to catch the disease or not. Many, too, seem to cling to the old belief that children are bound to get measles, whooping-cough, &c., and that it is just as well to get it over. Had the weather not been thoroughly warm during this epidemic, the fatality would have been great from lung complications.

Scarlet Fever (Scarlatina) again prevailed extensively during the year, cases being reported every month (as shewn in Table XIII.), although in July the reported cases fell to 2. Scarlet Fever

220 notifications were received for the year, as compared with 256 for 1897, and 157 for 1896.

11 deaths were caused by this Fever, giving a mortality of 0·23 per 1000, as compared with an English Rate of 0·11.

These 11 deaths give a mortality of 5 per cent. of notified cases compared with 5·8 in 1897.

Table XIII. shows the numbers notified in each Township for the separate months.

97 cases of this Fever were admitted into Mill Lane Hospital as against 123 in 1897.

I reported fully in 1897 as to the overcrowded condition of Mill Lane Hospital in consequence of the prevalence of Scarlet Fever, and the Engineer drew up a careful Report on the best way of increasing the provision for more cases. It was arranged to try to secure more land for future extensions, which are sure to be necessary in such a rapidly growing district, and especially to allow of an increase to the Administrative Block. Difficulties arose in connection with the purchase of the adjoining land and eventually the whole matter fell into abeyance. In October of 1898 I again made a Report to the Health and Hospital Committee on the insufficient accommodation, pointing out that several cases of Typhoid had been

unable to gain admission. It will be remembered, perhaps, that in 1897, the newer of the two pavilions was used for Scarlatina cases and the older and smaller for Typhoid, but the latter pavilion proved unequal to meet the demand, whilst the Scarlatina wards were more than fully occupied. In consequence of the second Report the Committee resolved to proceed with the erection of a new and larger pavilion on ground already belonging to the Hospital. While the question of enlarging the Administrative Block is deferred pending negotiations to acquire more land, I feel constrained again to urge the necessity of speedily securing land adjacent to the present Hospital site, otherwise in the not distant future two establishments will, I believe, be required, a plan which would involve a much greater expenditure in proportion to the work done than if the whole were centralized. It would involve a second administrative block, a second laundry, a second disinfecting chamber with ambulance arrangements also increased. The staff would also be more extensive and in addition the medical men after visiting one Hospital might have to go a long way to see a patient in the other. Finally, no other site so central and convenient is likely to be found.

In connection with the Scarlatina epidemic, I have again to draw attention to the fact that it seems clearly to have been maintained and spread through the medium of the Elementary Schools. This was especially the case with regard to St James's, Egerton Street, New Brighton, and I visited this school more than once and impressed on the Head-Mistress the necessity of care in excluding all pupils coming from infected houses, and drew her attention to a circular issued in December, 1897, with regard to various precautions. The danger arises chiefly from mild cases overlooked by parents and teachers alike, and the latter probably feel they are sufficiently burdened with their educational work without paying much heed to the health of their pupils.

Cases again came to my notice where such mild cases had escaped detection, and whole families thus got infected, and probably school companions also.

Diphtheria
and Croup

Four fatal cases of Diphtheria were recorded, and 1 of membranous Croup. 28 cases of Diphtheria were notified, and 4 cases of true

Croup, as against 9 and 3 respectively in 1897. There was a great prevalence of Follicular Tonsillitis during the past year, and probably several cases of this disease got notified as Diphtheria, seeing that it is very hard to draw the boundary line between them, both being infectious.

The 5 fatal cases of Diphtheria and Croup give a mortality of 0·10 per 1,000, as against an English rate of 0·24.

Whooping
Cough.

12 cases of Diphtheria were admitted to Mill-lane Hospital, (with 2 deaths), and 2 of Croup with no deaths.

Whooping Cough caused 19 deaths, as against 21 in 1897. This gives a mortality of 0·40 per 1,000, as against an English rate of 0·31.

17 were under 2 years of age. It prevailed chiefly in Seacombe and Liscard Townships.

Table XI. shows the localities and times of the fatal cases.

On the 16th March the Egremont Mission School was, on my certificate, closed for a month, (including Easter Holidays), owing to to the great prevalence of Whooping Cough amongst the children, by which the school was nearly emptied.

Diarrhœa caused 32 deaths as compared with 38 in 1897. The rate is, therefore, 0·68 per 1,000, as against 0·86 in 1897. The English rate was 0·96.

Diarrhœa

1 death occurred in May, 2 in July, 10 in August, 16 in September, and 3 in October. This shows well how the prevalence of this infantile disease is induced by hot weather, especially if there is drought at the same time. A reference to the Meteorological Table (VII.) brings this out in a more striking form.

Those figures, however, really give no idea of the Diarrhœa mortality, for of late years (as pointed out in previous Reports) it has become customary for medical men to certify many of these deaths as Enteritis or Gastro-Enteritis, a perfectly correct designation, which yet has the effect of moving them into the Class Local Diseases, instead of Zymotic Diseases.

Thus in 1898, 54 deaths were recorded as due to Enteritis (or Gastro-Enteritis). 45 of these were under 1 year of age and 4 more between 1 and 2, while of the 32 deaths from Diarrhœa, 28 were under 1 year and the other 4 between 1 and 2.

A circular from a Society of Medical Officers of Health has lately been issued to find out the practice prevailing as to the method of classifying such deaths, but it appears to me to rest with the Registrar General to take action on this matter, and Medical Officers of Health would soon follow his lead. As it is, the Diarrhœa statistics for the country are quite misleading.

For some years I have directed attention to the deaths from these two infantile diseases occurring in the two districts of Oakdale and Wheatland Lane (including the streets draining into Wheatland Lane), and I now give a Table to illustrate my remarks on the good effects produced by the improved drainage of these districts as regards the above Diseases and also Typhoid Fever.

TABLE XIV.—Deaths from Diarrhœa and Enteritis and from Typhoid.

	1895.	1896.	1897.	1898.
	Total Deaths..58.	Total..41.	Total..74.	Total..85.
Deaths from Diarrhœa and Enteritis in Oak- dale and Wheatland Lane Districts	25	16	15	29

TYPHOID FEVER.

	Total Deaths.	Notifications.	Total Notifications in	
			Oakdale.	Wheatland Lane.
1895	8	67	9	11
1896	10	112	6	12
1897	9	93	3	7
1898	9	87	6	5

(The total of 85 from Diarrhœa and Enteritis excludes 5 Deaths from Enteritis over 2 years of age.

The number of Deaths from Diarrhœa and Enteritis is a good deal larger than last year for the two districts specified, but in the first place the climatic conditions favoured the prevalence of Diarrhœa and Enteritis even more than in 1897, and, in the second place, a considerable increase in the population of Wheatland Lane District has taken place, furnishing a good portion of the increase.

Moreover, an analysis of the deaths in these two districts shows that in Oakdale District only 2 deaths from Diarrhoea and 3 from Enteritis occurred, while in the Wheatland Lane District 9 from Diarrhoea and 17 from Enteritis were recorded.

Again, only 1 death from Typhoid took place in Oakdale, and 2 in the Wheatland Lane District.

This Analysis is all the more interesting, because, as a matter of fact, the drainage of Oakdale has been almost entirely remodelled, while that of the Wheatland Lane District has been only partially undertaken, and it will be seen that Oakdale, which used to have a very bad record, has now a very good one. Of the 6 notified cases of Typhoid from Oakdale, 2 were imported.

Typhoid Fever caused 9 deaths in 1898, the same number as in 1897, (Vide Table X). These 9 deaths give a mortality of 0·19 per 1000, as against 0·20 in 1897 (the increase in Population causing the difference in rate).

The English Rate for continued Fever (including Typhoid, Typhus and simple continued Fever) was for 1898, 0·18.

The following Table shows in a striking form the deaths from Typhoid for the last 10 years, with corresponding rates per 1000 of Population.

Year.	Deaths.	Rate per 1000.
1889	12	0·36
1890	9	0·26
1891	20	0·59
1892	20	0·57
1893	23	0·64
1894	13	0·35
1895	8	0·20
1896	10	0·24
1897	9	0·20
1898	9	0·19

It is therefore clear that we are slowly but surely reducing the death-rate from Typhoid Fever, and I will presently recur to this fact.

Our average Typhoid Rate for the last 10 years (1889-1898, is 0·35 per 1,000, whilst the average English rate for the same period (including the three Fevers stated above), is only 0·17, but for the last four years our average was 0·20, against an English average of 0·17.

I strongly hope that before many years are over we may not only come down to the English rate, but fall below it.

87 cases were notified in 1898, as compared with 93 in 1897 and 112 in 1896.

These 87 cases give a mortality of 10·3 per cent. of notifications, as against 9·6 in 1897 and 8·9 in 1896, so that the disease evidently does not assume a milder type.

Table XIII shows the numbers notified in the different months and in the different localities of the District, whilst the localities of the fatal cases are shown in Table XI and also in the map at the end of this report.

47 cases were admitted into Mill Lane Hospital with 5 deaths, as compared with 32 cases and 3 deaths in 1897.

Of the total 87 notified cases, 13 were believed to be imported, most of these coming into the district with the disease already developing, and several being travellers who had been away from home for some time.

Table XIV., and my remarks on it, deal with the diminution of Typhoid Fever in Oakdale, owing to improved sewerage.

I have in previous reports remarked on the prevalence of Zymotic disease in Field Road, Eleanor Street, and Catharine Street (leading out of Field Road). Last year the sewer in Field Road was reconstructed, when the whole ground was found to be flooded with

sewage and water, owing to insufficient depth and fall of the sewer. The Engineer and Surveyor tells me that during the present year (1899) he hopes to reconstruct the sewers in Eleanor Street and Catharine Street—and I feel confident good results will follow. What is far more important, he hopes to undertake a thorough survey of the sewers in the lower part of New Brighton, comprised in the district to the east of Rowson Street and north of Molyneux Drive and Egerton Street, including Seymour Street and Sandhill Cottages, and the streets between Victoria Road and the sea frontage. I have long urged this in my Reports, and believe when reconstruction of sewers and drains is carried out in this district we shall have as striking a diminution of Typhoid, Diarrhoea and Enteritis, as has been witnessed in the case of Oakdale District. I may here mention that 13 cases of Typhoid were notified from this district of New Brighton during 1898—more than from the whole of the Oakdale and Wheatland Lane districts.

The reconstruction of main sewers was begun in January, 1898, starting at Leasowe Road, from the junction with the large marginal sewer. From Leasowe Road it was continued through Wallasey Village to Grove Road, up the whole of Grove Road and Hose-side, also through Warren Drive on to Portland Street, and work is still going on at the Mount Road sewer, the connection of which with the Grove Road sewer was also relaid.

The whole of Seabank Road sewer has now been relaid, and improved gradients have been obtained, connections have also been made between this sewer and those running down the drives, to establish a through current for ventilation purposes. Mill Lane sewer has been relaid, Poulton Road sewer is being relaid, and so also is the main sewer up Liscard Road. Various other sewers have been or are being relaid—*e.g.*, the east portion of Mount Pleasant Road sewer, Field Road, &c.

The condition of all these sewers when opened showed that the work was urgently required, and I hope we may soon see good results

in the shape of diminished Typhoid Rate and fewer complaints of foul smells from stagnant sewers.

A large amount of sewer reconstruction was also carried out by the Council's own workmen, but particulars of this have come too late to hand to be included in this Report.

No case of either Typhoid or Scarlet Fever was traced to milk. If any cases of Typhoid are due to contaminated water in this district, this can only be due to leaky and defective water-pipes running through ground polluted with Typhoid sewage from imperfect sewers or drains. This is always a possible source of infection, but it is very difficult to prove it in any given case, as our sanitary inspectors have seldom the means of detecting a flaw in the pipe for water-supply.

A careful record has been kept of all sanitary defects at houses where infectious diseases occurred. For instance, choked drains were found, leaking drains, saturating the subsoil around houses, open drains unconnected to disconnecting traps, down spouts (for rain) connected direct to the drain, with open joints allowing escape of sewer-gas into windows, and so forth. In one case the drains ran under the house and allowed escape of sewer-gas, as shown by Smoke Test. In other cases, complaints were made of offensive smells from open man-holes, and in several cases from open sewers under re-construction. In a few, foul privies were still found to exist.

17 fatal cases of influenza were recorded—all in the first 6 months of 1898. There were only 4 in 1897.

Consumption

Before leaving the Class Zymotic Diseases, I wish to make some remarks on one other Disease not hitherto included under this head. I refer to Consumption—or Tuberculosis, including under that term Pulmonary Phthisis, Tabes Mesenterica (Consumption of the Bowels), Tubercular Meningitis, and indeed Tubercle of any other part, such as joints, spinal and scrofulous Disease generally.

Since Koch demonstrated some years ago that this disease was due to a minute germ and that it was a Zymotic, the fact that it is to

a large extent preventible has forced itself on the attention of medical men. That it is also in many cases curable by suitable treatment when this can be carried out is also being realized more and more.

Again, the terrible fact that 70,000 persons, at a very moderate rate of calculation, die every year of this disease in Great Britain and Ireland has forced the prevalence of Tubercle not only upon the minds of medical men, but upon all men and women who take an interest in the welfare of their fellows. It is also calculated that 1 in 10 of the Population suffers in one form or another from Tubercle.

This has led to the formation, during 1898, of the National Association for the Prevention of Consumption, and in many places local branches are being started, affiliated with the parent Association.

The objects are

- (1.)—To educate the public as to the means of preventing the spread of consumption from those already suffering from the disease.
- (2.)—To extinguish tuberculosis in cattle.
- (3.)—To promote the erection of sanatoria for the open air treatment of tuberculous disease.

A Report such as this is not the place for exhaustive discussion of such a subject, but I hope during the year to get the co-operation of the Health Committee in aiding the above objects by the most suitable means, *e.g.*, the distribution of pamphlets, such as that drawn up some time ago by Dr. Vacher, the Medical Officer of Health for the County of Chester, to whom credit is due for being early in the field to promote all the above aims.

Meanwhile it will not be out of place to mention that it lies largely with Medical men to help by giving instructions about the disinfection of all expectoration from Consumptive patients and of clothing or bedding that may have been infected.

The officials of the Council will readily respond to any request to disinfect rooms, carpets, clothing or bedding when need arises.

It is now well known that cows are very prone to consumption, as many as 40 per cent. of some herds having been found to be affected. Until some national system of inspection is adopted, (as is the case in Denmark for instance), it is as well to sterilize or boil milk, especially for the use of children, unless the source is known to be safe, because the germs may get into the milk and cause what is known as Consumption of the bowels.

Flushing of Sewers and Drains

Mr. Travers (Engineer and Surveyor) informs me that three separate gangs are now employed for flushing the sewers and back passages. (These gangs are quite independent of the three gangs employed for flushing house drains). A tank holding 1,800 gallons is used for the trunk sewers, and one holding 500 gallons for branch sewers. Where these tanks cannot be used (as in back passages, &c.) hose piping is used.

The flushing of house drains has been regularly carried on during the year by the three gangs of men appointed for this purpose, and details will be found in the Inspector of Nuisances' Report. One of these gangs devotes itself chiefly to the flushing of drains, &c., at houses where infectious disease is notified—especially cases of Typhoid, Scarlatina, and Diphtheria.

The systematic flushing of sewers by the large tanks now carried out under the Surveyor's directions seems to have had a good effect in diminishing the foul smells from manholes, and complaints have not been so numerous. The Engineer and Surveyor continues to erect ventilating shafts in suitable places, and also gas lamps which by a special arrangement are connected to the sewer and so act as ventilators.

The next Table gives details as to cases admitted to Mill-lane Hospital :—

Year	1895.	1896.	1897.	1898.
Admissions	85	145	171	163

TABLE XV.—**Cases of Infectious Disease admitted into Mill Lane Hospital during the year 1898.**

		Diphtheria.		Membranous Croup.		Erysipelas.		Scarlatina.		Typhoid.	
Poulton-cum-Seacombe	Under 5 years	3 (2 deaths)	0	..	0			13 (1 death)	0		
	Over 5 years	2	0	..	2 (1 death)	27 (1 death)	21 (3 deaths)				
Liscard	Egremont Under 5	0	..	0	..	0	..	4 (1 death)	0		
	Egremont Over 5	1	..	0	..	0	..	8 (1 death)	3		
	Liscard Under 5	1	..	0	..	0	..	3	..	0	
	Liscard Over 5	0	..	1	..	2 (1 death)	12	..	14 (1 death)		
	New Brighton Under 5	1	..	0	..	0	..	7	..	0	
	New Brighton Over 5	1	..	1	..	1	..	19 (2 deaths)	7 (1 death)		
Wallasey	Under 5	0	..	0	..	0	..	2 (1 death)	0		
	Over 5	3	..	0	..	0	..	2	..	2	
Totals	Under 5	5	..	0	..	0	..	29	..	0	34
	Over 5	7	..	2	..	5	..	68	..	47	129
										163	

As detailed under the heading of Scarlatina on page 15 the accommodation was found to be insufficient, and several cases of Typhoid had to be refused admission.

There were 16 deaths among the 163 cases—a percentage of 9·8—somewhat higher than usual, but many of the cases were of a most serious type.

The matron and six nurses have worked hard and well. Some further provision must soon be made for the nursing staff when the new pavilion is begun, as the present administrative block is fully occupied.

The collection of night soil by the Council's own staff has worked smoothly and well, and in consequence the old and frequent complaints about full ashpits have practically ceased.

It is very desirable that Householders should understand they can now do away with ashpits altogether by substituting covered dustbins, which are emptied once a week by the night-soil staff.

This method does away with the old and bad method of wheeling out the contents of ashpits (often foul and decomposing) to be emptied on the road and left till the cart comes round to remove them. It also does away with the noise and disturbance of the barrows and shovelling—formerly a great annoyance to householders at night.

These bins cost only a few shillings, and are simply carried out by the men and emptied into the night-soil cart.

For schools and public Institutions, as well as for private houses, they are a great improvement on the old system.

A perusal of the report of Mr. Bascombe, Chief Inspector of Nuisances, will show the very large amount of House Inspection carried on, the number and nature of Nuisances discovered and remedied, with many other details as to Dairies, Cowsheds, Slaughter-houses, Bakehouses, &c.

Inspection under the Factories and Workshops' Act is regularly carried on, by which we now have supervision as to sanitary conditions, ventilation, the number of persons allowed to work in each room, overtime, &c.

The provisions set forth in the Bye-laws for sublet-houses on the Register are also carried out by weekly inspections on the part of the Inspectors, and all this has had a most salutary effect on the sanitary conditions of such houses.

Insanitary
Property.

Special Reports have been made on the Insanitary Property in our District from time to time for years back and attempts have been made to remedy the worst defects, especially the old and foul privies, which existed in all this class of property when I first began to deal with it. Some members of the Council took a lively interest in this question, when the new Committees were appointed, and as a result an Insanitary Property Committee was appointed with Dr. Oldershaw as Chairman. On the 12th May, the Committee, accompanied by

the Clerk, Medical Officer of Health, Engineer and Surveyor, and the Inspector of Nuisances, visited all the old property in the District classed as Insanitary.

Seacombe (including Oakdale, Mersey-street, courts off Victoria Road, Brighton Place, &c.), was visited, Egremont, where Burnaby-street and part of Union-street were inspected, and Liscard where Field Cottages and Stafford Buildings were examined.

After further meeting and discussion, it was arranged to deal with certain specified portions, and the opinions of Dr. Hope and of Dr. Tattersall (as experts) were obtained after they visited and examined the property in question. I then reported on the whole question and the Committee decided on their course of action. My full Reports were handed in and it is unnecessary to reproduce them here, especially as the matter now lies with the Clerk and Solicitor to the Council, the necessary certificates with regard to the property in question having been furnished by me.

It is therefore necessary now to await the result of legal proceedings to be taken under the Housing of the Working Classes Act (1890), and I shall reserve any comments upon the subject till a decision has been come to.

TABLE XVI.—Vaccination Return for Wallasey District from 1st July, 1897, to 30th June, 1898—
(*Supplied by Mr. Stewart, the Registrar*).

Vaccination
Statistics

Successfully Vaccinated	..	..	..	..	1,070
Died under Vaccination Age	..	..	..	..	146
Insusceptible	..	..	..	..	5
Postponed by Medical Certificate	..	..	..	..	26
Removed, traced and Vaccination Officer notified	..	..	..	..	11
Not found	..	..	..	..	25
Unaccounted for (mainly lapsed postponements)	..	..	..	..	17
Total Births registered..					1,300

This gives a percentage of 3·2 of the 1,300 born who have escaped Vaccination.

In connection with the subject of Vaccination, it seems desirable to make some allusion to the Vaccination Act of 1898, with its important alterations.

The Conscience Clause, by which a parent is allowed to get a certificate of exemption from Vaccination for his child if he satisfies the bench that he has conscientious objections, is already pretty generally considered to be a weak yielding on the part of Government to pressure exercised by a small but noisy body of agitators. The more recent use of Glycerinated Calf Lymph takes away all possible objections to the practice of Vaccination on the score of danger to the child, and the right of the State seems clear to demand not only that the child should be protected from a loathsome disease, but that parents should be prevented from spreading the disease in the community generally by refusing to have their children vaccinated, and so greatly increasing the risk of epidemics of Small-Pox.

A very practical issue lies before the Health Committee, viz., What is its duty as regards the community in the way of providing isolation for Small-pox cases? That these are likely to occur in greater frequency than hitherto, and very probably to result in an epidemic, is the opinion of most who have carefully considered the matter.

This is not simply from exemption owing to conscientious objections, because in many districts this method of escape has not been freely resorted to, but rather because now a large mass of the population has got hold of the idea that the authorities are vacillating, that they will not compel vaccination, or at all events will not impose any penalty sufficient to induce compliance with the Act. Again, it is necessary to confess with shame as far as the Medical profession is concerned, that many doctors, especially those keeping cheap dispensaries, are pandering to the public pressure and are putting, in many instances, only one or two poor vaccine insertions on the arm. This is not efficient protection.

Now if it is resolved to provide isolation, to what extent should this be carried? Not less than 2 beds per 1,000 (irrespective of other infectious diseases), would be considered sufficient. During the present year the population will probably exceed 50,000, which means a provision of 100 beds. But the cost per bed (all told—including price of land, buildings, furnishing, &c.,) runs to not less than £300, so that adequate isolation for our population for small pox alone would mean £30,000. The community is not likely to face this, nor can I as Medical Officer of Health, recommend it, nor does it seem fair that those who have protected themselves and their children by vaccination should be called on to pay for those who decline to adopt the simple means of protection.

I have gone into this question at some length, because the question has to be faced, and it is well to have a definite policy mapped out and decided on.

This does not in the least degree imply that we should not make some moderate provision against an outbreak of small-pox, as it is most desirable to be able to isolate the first cases that arise, by which means an epidemic is often nipped in the bud.

The next table gives particulars as to the Water Supply and Distribution as kindly furnished by Mr. J. H. Crowther, the Gas and Water Engineer.

Volume of Water pumped 1/1/98 to 31/12/98 ..	..	535,407,965 gallons.
Average pumped per day .. .. .	..	1,466,871 „
Average consumption per day, per head ..	..	32 66 „

Divided as follows :—

Supplied by Meter	4.35
Supplied to Shipping .. .. .	.65
Watering Streets and Roadmaking .. ..	.43
Flushing Sewers by Hose and Cart	1.01
Domestic and other purposes, including Drinking Fountains, Gardens, &c., by Assessment	26.82

The quantity of water used for flushing sewers during the year ended 31st December, 1898, was 17,108,629 gallons, divided as follows :—

Flushing Sewers by Hose and Cart	16,634,629
„ „ Cisterns (Automatic) ..	474,000
	<u>17,108,629</u>

I now add some statistics as to the work done in our District under the Sale of Food and Drugs and Margarine Acts, during 1898, as furnished to me by the Chief Inspector (Mr. W. D. Laird), of the County Council.

Samples purchased in the Wallasey District, and submitted to the Public Analyst under the Sale of Food and Drugs and Margarine Acts, during the year ended December 31st, 1898.

Name of Sample.	No. of Samples.	No. of Samples Certified as Adulterated	REMARKS.
Arrowroot	8	—	One of these milks was returned as adulterated with 2% water only, and no prosecution was undertaken in this case, the seller being cautioned.
Butter	31	2	
Cheese	1	—	
Coffee	10	3	
Ginger	1	—	
Milk, New	46	2	
„ Condensed	3	—	
Oatmeal	1	—	
Pepper	7	—	
Rum	1	—	
Sugar, Demerara	1	—	
Whiskey	4	—	
Wine, Port	1	—	
Totals.	115	7	

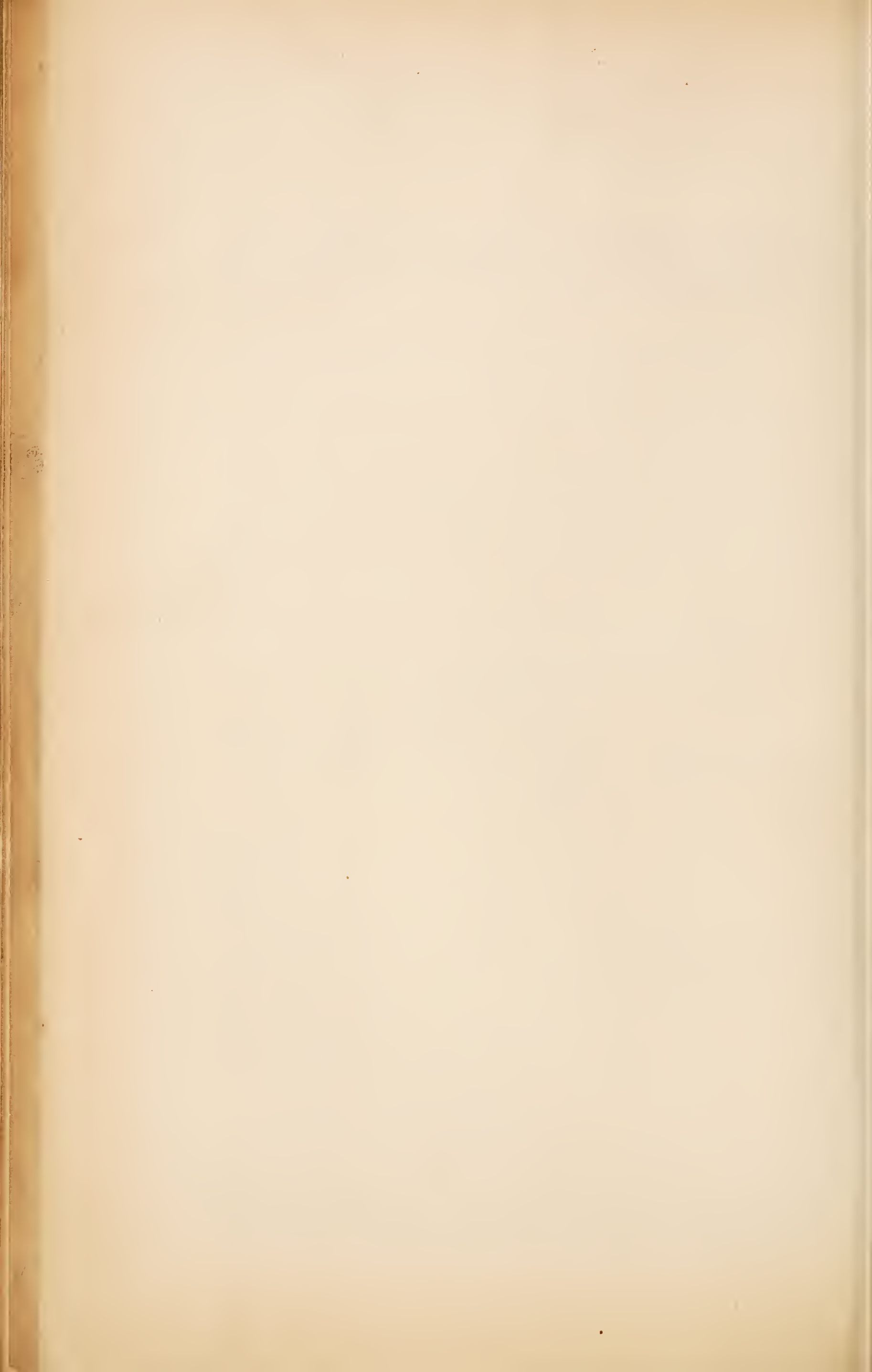
NOTE.—In addition to the above 7 samples returned as adulterated, 5 others viz., 4 milks and 1 whiskey were stated by Analyst to be of “poor quality.” The sellers of these poor samples were cautioned.

Particulars of Prosecutions undertaken in the Wallasey District under the Sale of Food and Drugs and Margarine Acts during the year ended December 31st, 1898.

Nature of Offence.	Result of Prosecution.
Exposing unlabelled margarine for sale	Fined 1/- together with 8/6 costs.
Selling margarine as butter	Do. 10/- do. 14/6 do.
Selling coffee adulterated with 45 ^o / _o chicory ..	Do. 10/- do. 14/6 do.
Do. do. do. do. 40 ^o / _o do. ..	Do. 10/- do. 14/6 do.
Do. do. do. do. 20 ^o / _o do. ..	Do 5/- do. 14/6 do.
Selling milk do. do. 8 / _o water ..	Do. 20/- do. 14/6 do.

I am, Gentlemen,
Yours obediently,
A. CRAIGMILE, M.A., M.D.
Medical Officer of Health.

February 17th, 1899.



DEATHS IN THE PARISH OF WALLASEY.

During the Year 1898.

Acreage 3,408.153.

Population in 1891, 33,229.

Estimated Population—middle of 1898—46,800.

DISEASES.	SEXES.		AGES.										TOWNSHIPS.					MONTHS.												QUARTERS.				Year	TOTAL
	M.	F.	0 to 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 65	65 to 85	Above 85	Poulin and St-James	Lisard	Wallasey	Hospitals	Non-Residents.	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	1st	2nd	3rd	4th		
CLASSES.																																			
I—ZYMOTIC DISEASES ..	47	67	38	17	12	8	6	5	3	14	9	2	64	43	7	18	3	6	2	7	16	10	9	10	14	16	11	4	9	15	35	40	24	114	
II—CONSTITUTIONAL DISEASES ..	60	67	8	9	2	11	17	24	43	11	0	47	69	11	4	2	8	6	9	13	18	7	9	7	16	11	11	12	23	38	32	34	127		
III—LOCAL DISEASES ..	221	186	115	19	10	16	16	19	27	86	95	4	192	189	26	21	6	30	30	34	28	37	25	30	46	40	39	36	94	90	116	107	407		
IV—DEVELOPMENTAL DISEASES ..	36	55	56	4	0	2	1	2	2	18	6	38	46	7	0	1	14	5	7	8	11	5	1	5	11	5	13	6	26	24	17	24	91		
V—VIOLENT DEATHS ..	19	11	2	0	2	3	5	1	5	9	3	0	13	14	3	3	10	1	2	2	3	1	4	3	1	3	2	6	2	5	8	7	10	30	
Natural or not specified or ill defined Tumours ..	3	1	2	0	0	1	0	0	1	0	0	0	2	2	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	1	2	1	0	4	
TOTALS ..	386	388	221	49	26	29	41	43	61	155	137	12	356	364	54	46	23	59	46	59	69	77	52	54	73	86	68	70	61	164	198	213	199	774	
Class I ZYMOTIC DISEASES.																																			
Order 1 Miasmatic																																			
1 Smallpox ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2 Measles ..	1	5	2	2	2	0	0	0	0	0	0	0	3	1	2	0	0	0	1	0	0	0	0	2	0	0	0	1	1	0	1	1	2	6	
3 Scarlet Fever (Scarlatina) ..	4	7	0	1	5	4	1	0	0	0	0	0	7	2	2	8	0	3	0	1	1	1	1	0	0	1	2	1	3	3	1	4	11		
4 Diphtheria ..	2	2	0	0	3	0	1	0	0	0	0	0	3	1	0	2	0	1	0	0	0	0	1	0	0	1	0	1	1	0	1	2	4		
5 Quinsy ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6 Croup ..	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1		
7 Whooping Cough ..	9	10	7	10	1	1	0	0	0	0	0	0	9	10	0	0	1	1	0	2	5	4	1	1	3	0	0	0	2	3	10	4	2	19	
8 Typhus Fever ..	3	6	0	0	0	1	2	2	2	2	0	0	6	3	0	5	0	0	0	0	1	0	3	2	0	0	2	0	1	0	4	2	3	9	
9 Enteric or Typhoid Fever ..	3	6	0	0	0	1	2	2	2	2	0	0	6	3	0	5	0	0	0	0	1	0	3	2	0	0	2	0	1	0	4	2	3	9	
10 Simple continued Fever ..	3	6	0	0	0	1	2	2	2	2	0	0	6	3	0	5	0	0	0	0	1	0	3	2	0	0	2	0	1	0	4	2	3	9	
11 Erysipelas ..	1	2	1	0	0	0	0	0	0	1	1	0	3	0	0	2	0	0	0	1	0	0	1	0	0	0	0	1	1	0	1	1	3	2	
12 Puerperal Fever (Metria) ..	0	2	0	0	0	0	1	1	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	3	
13 Carbuncle ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14 Cerebro-Spinal Fever ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15 Dysentery ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16 Diarrhoea ..	13	19	28	4	0	0	0	0	0	0	0	0	21	10	1	0	1	0	0	0	1	0	2	10	16	3	0	0	0	1	28	3	32	0	
17 Cholera ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18 Ague ..	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
19 Remittent Fever ..	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	
20 Rheumatic Fever ..	4	4	0	0	0	2	1	0	0	3	2	0	5	3	0	0	0	0	0	0	2	0	2	0	0	0	0	1	1	2	0	4	0	4	8
21 Rheumatism ..	4	4	0	0	0	2	1	0	0	3	2	0	5	3	0	0	0	0	0	0	2	0	2	0	0	0	0	1	1	2	0	4	0	4	8
22 Pyemia and Septicæmia ..	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	
Order 2—Enthetic.																																			
1 Syphilis ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Hydrophobia ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Glanders ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 Influenza ..	8	9	0	0	0	0	0	0	0	0	2	1	6	6	2	4	11	2	0	1	4	7	3	1	0	0	0	0	0	6	11	0	0	17	114
Class II—CONSTITUTIONAL DISEASES.																																			
Order 1—Diathetic.																																			
1 Hemophilia Hemorrhage ..	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
2 Gout ..	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	
3 Dropsy ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 Cancer ..	14	18	0	0	0	0	0	0	4	19	9	0	6	22	4	0	0	2	3	1	2	4	2	2	2	4	2	4	4	6	8	8	10	32	
5 Cancerum Oris (Norma) ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 Mortification ..	0	2	0	0	0	0	0	0	0	0	2	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	1	
7 Anaemia ..	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	
8 Lincocytæmia ..	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	
9 Addison's & Hodgkin's Dis. and Lymphadenoma ..	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Order 2—Tubercular.																																			
1 Scrofula ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Tabes Mesenterica ..	4	3	5	0	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	1	2	1	0	1	1	1	1	1	1	3	3	1	8	8	
3 Pthisis ..	32	32	0	1	1	1	10	15	17	19	0	0	28	31	5	3	2	4	2	6	7	9	4	3	3	11	7	5	3	12	20	17	15	64	
4 Hydrocephalus ..	1	2	2	1	0	0	0	0	0	0	0	0	2	1	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	2	0	0	3	7	
5 Acute Tuberculosis ..	3	4	1	1	1	0	1	2	0	1	0	0	2	3	2	1	0	0	0	0	0	2	0	2	0	0	0	1	2	0	2	2	3	7	
Order 3—Diætic.																																			
1 Apoplexy ..	13	10	0	0	0	0	0	2	0	12	9	0	10	10	3	1	0	1	3	2	1	3	0	2	3	2	2	2	2	6	4	7	1	2	
2 Paralysis ..	6	4	0	0	0	1	0	0	0	3	6	0	0	9																					

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